CLAIMS

I claim:

1. A multi-functional cart for transporting objects comprising:

a frame;

a first handle connected to said frame adjacent a first end of said frame;

a second handle connected to said frame adjacent a second end of said frame, said first handle selectively movable between a first position perpendicular to said frame and a second position generally coplanar within said frame, said frame having a first axle member in engagement with said first handle, said frame having a second axle member in engagement with said second handle, said first handle rotatable between said first and second positions about said first axle member, said second handle rotatable between said first and second positions about said second axle member;

a first pair of wheels connected to said frame adjacent said first end of said frame, said first pair of wheels being rotatably mounted to a tubular axle; and

a second pair of wheels connected to said frame adjacent said second end, each of said second pair of wheels being a caster rotatably interconnected to said frame, said first handle having a length ranging between 8 inches and 24 inches as measured from a bottom of said first pair of wheels upwardly when said first handle is in said first position, said second handle having a length of at least 39 inches as measured from a bottom of said second pair of wheels upwardly when said second handle is in said first position, said frame, said first and second handles and said first and second pair of wheels occupying a volume of less than 50 cubic inches, and said frame, said first and second handles and said first and second pair of wheels having a total weight of less than 18 pounds.

2. The cart of Claim 1, each of said first pair of wheels having a pneumatic tire affixed around a hub.

3. The cart of Claim 2, said hub being comprised of a polymeric material having a central aperture, said central aperture receiving roller bearings therein, said roller bearings receiving said tubular axle therein.

4. The cart of Claim 3, said tubular axle having a pair of holes formed therein, said pair of holes receiving a cotter pin therein at an end of said tubular axle outwardly of the wheel.

5. The cart of Claim 1, each of said first pair of wheels having a thermoplastic tread bonded to a polymeric hub.

6. The cart of Claim 5, said polymeric hub having a central aperture therein, said central aperture receiving roller bearings therein, said roller bearings receiving said tubular axle therein, said polymeric hub having a plurality of holes formed therein and therethrough and extending in spaced radial relationship around said central aperture.

7. The cart of Claim 1, each of said second pair of wheels having a caster frame pivotally connected to said frame and extending downwardly therefrom, said caster being rotatably mounted within said caster frame.

8. The cart of Claim 7, said caster frame comprising:

a generally flat surface in parallel relationship with said frame, said flat surface being pivotally connected to said frame;

a first wing member extending transversely outwardly from said flat surface on one side of said flat surface; and

a second wing member extending transversely outwardly from said flat surface on an opposite side of said flat surface in parallel relationship to said first wing member, said caster being rotatably mounted between said first and second wing members.

9. The cart of Claim 8, each of said first and second wing members having a plurality of holes formed therein and therethrough in spaced parallel relationship downwardly from said flat surface.

10. The cart of Claim 7, said caster having a thermoplastic tread bonded to a polymeric hub, said polymeric hub having a plurality of holes formed therein and therethrough and extending in spaced radial relationship around said caster.

11. The cart of Claim 1, said frame having a first frame member and a second frame member in telescopic relationship to each other, said frame having a generally rectangular configuration, said frame being fixable in either a telescoped position or a retracted position.

12. The cart of Claim 11, wherein said first frame member has a plurality of threaded

thumbnuts having a diameter of 1.75 inches, said thumbnuts extending through said first and second frame members and fixedly engaging said first and second frame members, and each of said thumbnuts having a tensioner spring interposed between each of said thumbnuts and said frame.

13. The cart of Claim 11, wherein said frame in said retracted position, said first handle being selectively locked in said second position, said second handle being selectively locked in said second position, said first and second pair of wheels have a dimension of 26" x 14.25" x 7.5"; and

wherein said frame in said telescoped position, said first handle being selectively locked in said first position, said second handle being selectively locked in said first position, said first and second pair of wheels have a dimension of 39" x 14" x 31".

14. The cart of Claim 11, said second frame member having an end surface extending between said second pair of wheels, said end surface having a plurality of holes formed therein and therethrough, said plurality of holes being in spaced relationship to each other and having a colinear central axis.

15. The cart of Claim 11, said first frame member having a first stair climber frame member affixed directly to and extending directly outwardly from an underside of one side of said first frame member, said first frame member having a second stair climber frame member affixed directly to and extending directly outwardly from an underside of an opposite side of said first frame member, said second stair climber frame being in parallel relationship to said first stair climber frame, wherein said first and second stair climber frames are welded flush to respective inside edges of said first frame

member.

16. The cart of Claim 15, said first pair of wheels being positioned adjacent respective outer surfaces of said first and second stair climber frames.

17. A multi-functional cart for transporting objects comprising:

a frame;

a first handle connected to said frame adjacent a first end of said frame;

a second handle connected to said frame adjacent a second end of said frame, said first handle selectively movable between a first position perpendicular to said frame and a second position generally coplanar with said frame;

a first pair of wheels connected to said frame adjacent said first end of said frame, each of said first pair of wheels having a hub, said hub being formed of a polymeric material, said hub having a plurality of concentric holes around said central aperture, said hub having a concave shape and a thermoplastic tread bonded thereto, said thermoplastic tread having a domed configuration and uniform thickness; and

a second pair of wheels connected to said frame adjacent said second end, each of said second pair of wheels being a caster rotatably interconnected to said frame.

18. A multi-functional cart for transporting objects comprising:

a frame;

a first handle connected to said frame adjacent a first end of said frame;

a second handle connected to said frame adjacent a second end of said frame, said first handle selectively movable between a first position perpendicular to said frame and a second position generally coplanar with said frame;

a first pair of wheels connected to said frame adjacent said first end of said frame; and

a second pair of wheels connected to said frame adjacent said second end, each of said second pair of wheels comprising:

a caster frame pivotally connected to said frame and extending downwardly therefrom; and

a caster rotatably mounted within said caster frame, said caster having a thermoplastic tread bonded to a polymeric caster hub, said polymeric caster hub having a plurality of concentrically arranged holes formed therein, said polymeric caster hub having an outer circumference width greater than an inner circumference thereof.

19. A multi-functional cart for transporting objects comprising:

a frame;

a first handle connected to said frame adjacent a first end of said frame;

a second handle connected to said frame adjacent a second end of said frame, said first handle selectively movable between a first position perpendicular to said frame and a second position generally coplanar within said frame, said frame having a first axle member in engagement with said first handle, said frame having a second axle member in engagement with said second handle, said first handle rotatable between said first and second positions about said first axle member, said second handle rotatable between said first and second positions about said second axle

member;

a first pair of wheels connected to said frame adjacent said first end of said frame, said first pair of wheels being rotatably mounted to a first tubular axle; and

a second pair of wheels connected to said frame adjacent said second end, each of said second pair of wheels being a caster rotatably interconnected to said frame, said second pair of wheels being rotatably mounted to a second tubular axle fixedly attached to said frame at said second end; said second tubular axle being comprised of a metal or plastic tube, said second tubular axle having a plurality of cord holes formed therein.

20. A multi-functional cart for transporting objects comprising:

a frame means to transform into eight or more configurations;

a first handle connected to said frame means adjacent a first end of said frame means;

a second handle connected to said frame means adjacent a second end of said frame means, said first handle selectively movable between a first position perpendicular to said frame means and a second position generally coplanar within said frame means, said frame means having a first axle member in engagement with said first handle, said frame means having a second axle member in engagement with said second handle, said first handle rotatable between said first and second positions about said first axle member, said second handle rotatable between said first and second positions about said second axle member;

a first pair of wheels connected to said frame means adjacent said first end of said frame means, said first pair of wheels being rotatably mounted to a tubular axle; and

a second pair of wheels connected to said frame means adjacent said second end, each

of said second pair of wheels being a caster rotatably interconnected to said frame means, said first handle having a length ranging between 8 inches and 24 inches as measured from a bottom of said first pair of wheels upwardly when said first handle is in said first position, said second handle having length of at least 39 inches as measured from a bottom of said second pair of wheels upwardly when said second handle is in said first position, said frame means, said first and second handles and said first and second pair of wheels occupying a volume of less than 50 cubic inches, and said frame means, said first and second handles and said first and second pair of wheels having a total weight of less than 18 pounds;

wherein said frame means comprises a first frame member and a second frame member in telescopic relationship to each other, said frame means having a generally rectangular configuration, said frame means being fixable in either a telescoped position or a retracted position;

wherein said frame means has a "long-hi stacker" configuration having said first handle selectively locked in said first position, said second handle selectively locked in said first position, and said frame means being fixed in said telescoped position;

wherein said frame means has a "long furniture dolly" configuration having said first handle selectively locked in said second position, said second handle selectively locked in said second position, and said frame means being fixed in said telescoped position;

wherein said frame means has a "long platform cart" configuration having said first handle selectively locked in said second position, said second handle selectively locked in said first position, and said frame means being fixed in said telescoped position;

wherein said frame means has a "short-hi stacker" configuration having said first handle selectively locked in said first position, said second handle selectively locked in said first position,

and said frame means being fixed in said retracted position;

wherein said frame means has a "short furniture dolly" configuration having said first handle selectively locked in said second position, said second handle selectively locked in said second position, and said frame means being fixed in said retracted position;

wherein said frame means has a "short platform cart" configuration having said first handle selectively locked in said second position, said second handle selectively locked in said first position, and said frame means being fixed in said retracted position;

wherein said frame means has a "2-wheel handtruck" configuration having said first handle selectively locked in said first position, said second handle selectively locked in said second position, and said frame being fixed in said telescoped position and rotated 90° on said first axle; and

wherein said frame means has a "storage/transport" configuration having said first handle selectively locked in said second position, said second handle selectively locked in said second position, and said frame means being fixed in said retracted position.